

Clackamas Community College

Online Course/Outline Submission System

Show changes since last approval in red

CS-152 Networking II

General education certified: Yes No

- Writing
- Oral Communication
- Arts and Letters
- Science & Computer Science
- Mathematics
- Social Science
- Cultural Literacy
- Health & Physical Education

Approved Date (mm/dd/yyyy): / /

Section #1 General Course Information

Department: Business & Computer Science: Computer Science

Submitter

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Course Prefix and Number: CS - 152

Credits: 4

Contact hours

Lecture (# of hours): 22
Lec/lab (# of hours): 44
Lab (# of hours):
Total course hours: 66

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

Course Title: Networking II

Course Description:

Practices the building and servicing of basic computer networks. Topics include physical media, network design, addressing, routing, switching, and management used in common LANs and the Internet. This course, in conjunction

with CS-151, covers the topics of the CompTIA Network+ exam.

Type of Course: Career Technical Preparatory

Is this class challengeable?

Yes

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

Name of degree(s) and/or certificate(s): Computer Science AAS & Certificate

Are there prerequisites to this course?

Yes

Pre-reqs: CS-151 & CS-227

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

No

GRADING METHOD:

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

No

Will this course appear in the college catalog?

Yes

Will this course appear in the schedule?

Yes**Student Learning Outcomes:**

Upon successful completion of this course, students should be able to:

1. calculate network, subnet, and broadcast addresses for an IP network;
2. describe the functionality and benefits of common network topologies;
3. install (pull and terminate) UTP cable between punch down blocks and wall jacks;
4. install appropriate cross connect cables between infrastructure network devices;
5. identify, test, and verify simple cable systems;
6. discuss the differences and appropriate use of static and dynamic routing;
7. configure basic settings on Cisco routers and switches;
8. configure static and dynamic routing on Cisco routers;
9. configure basic access rules on Cisco routers;
10. discuss appropriate use of VLANs;
11. configure VLANs on Cisco switches;
12. configure basic access protections on Cisco switches.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. TCP/IP Addressing.
 - a. IP addressing.
 - b. Subnetting.
2. Network topology an design.
 - a. LAN design models.
 - b. Physical media.
 - c. Network trace tools.
 - d. Punchdowns and terminations.
3. Routers.
 - a. IOS interface.

- b. Configurations.
- c. Static routing.
- d. Dynamic routing.
- 4. Network security.
 - a. Firewalls and ACL's.
 - b. Passwords.
 - c. Encrypted management protocols.
- 5. Advanced networks.
 - a. Switches.
 - b. Switch setup.
 - c. VLANs.
- 6. Troubleshooting and management.
 - a. OSI layer.
 - b. Network mapping.
- 7. IPv6.
 - a. Notation.
 - b. Addressing.

Does the content of this class relate to job skills in any of the following areas:

- | | |
|--------------------------------------|-----------|
| 1. Increased energy efficiency | No |
| 2. Produce renewable energy | No |
| 3. Prevent environmental degradation | No |
| 4. Clean up natural environment | No |
| 5. Supports green services | No |

Percent of course: 0%

First term to be offered:

Next available term after approval

:
